



1

SEQUENCE LISTING

<110> FUJIMORI, MINORU
TANIGUCHI, SHUNICHIRO
AMANO, JUN
YAZAWA, KAZUYUKI
KANO, YASUNOBU
NAKAMURA, TOSHIYUKI
SASAKI, TAKAYUKI

<120> ANAEROBIC BACTERIUM AS A DRUG FOR CANCER GENE THERAPY

<130> 671308-2001.1

<140> 10/782,899

<141> 2004-02-23

<150> 09/816,391

<151> 2001-03-26

<150> JP 2000-287688

<151> 2000-09-21

<160> 4

<170> PatentIn Ver. 3.2

<210> 1

<211> 600

<212> DNA

<213> Bifidobacterium longum

<220>

<221> CDS

<222> (193)..(471)

<400> 1

gctgggcgcg gcggccatga agtggcttga caagcataat cttgtctgat tcgtctatatt 60
tcaatacctt cggggaaata gatgtgaaaa cccttataaa acgcgggttt tcgcagaaac 120
atgcgctagt atcattgatg acaacatgga ctaagcaaaa gtgcttgtcc cctgacccaa 180
gaaggatgct tt atg gca tac aac aag tct gac ctc gtt tcg aag atc gcc 231
Met Ala Tyr Asn Lys Ser Asp Leu Val Ser Lys Ile Ala
1 5 10
cag aag tcc aac ctg acc aag gct cag gcc gag gct gct gtt aac gcc 279
Gln Lys Ser Asn Leu Thr Lys Ala Gln Ala Glu Ala Ala Val Asn Ala
15 20 25
ttc cag gat gtg ttc gtc gag gct atg aag tcc ggc gaa ggc ctg aag 327
Phe Gln Asp Val Phe Val Glu Ala Met Lys Ser Gly Glu Gly Leu Lys
30 35 40 45
ctc acc ggc ctg ttc tcc gct gag cgc gtc aag cgc ccg gct cgc acc 375
Leu Thr Gly Leu Phe Ser Ala Glu Arg Val Lys Arg Pro Ala Arg Thr
50 55 60

ggc cgc aac ccg cgc act ggc gag cag att gac att ccg gct tcc tac 423
Gly Arg Asn Pro Arg Thr Gly Glu Gln Ile Asp Ile Pro Ala Ser Tyr
65 70 75

ggc ggt cgt atc tcc gct ggc tcc ctg ctg aag aag gcc gtc acc gag 471
Gly Val Arg Ile Ser Ala Gly Ser Leu Leu Lys Lys Ala Val Thr Glu
80 85 90

tgaccttctg ctcgtagcga ttacttcgag cattactgac gacaaagacc cgcaccgaga 531
tggtcgggggt ctttttggtg tgggtgctgtg acgtgttgtc caaccgtatt attccggact 591
agttcagcg 600

 $\langle 210 \rangle$ 2

<211> 18

<212> DNA

<213> Artificial Sequence

$\langle 220 \rangle$

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2

ggttcgaata acgcttta

18

 $\langle 210 \rangle$ 3

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3

cggttaactc aacgtttgta atc

23

<210> 4

<211> 93

<212> PRT

<213> Bifidobacterium longum

<400> 4

<400> 4
Met Ala Tyr Asn Lys Ser Asp Leu Val Ser Lys Ile Ala Gln Lys Ser
1 5 10 15

Asn Leu Thr Lys Ala Gln Ala Glu Ala Ala Val Asn Ala Phe Gln Asp
20 25 30

Val Phe Val Glu Ala Met Lys Ser Gly Glu Gly Leu Lys Leu Thr Gly
35 40 45

Leu Phe Ser Ala Glu Arg Val Lys Arg Pro Ala Arg Thr Gly Arg Asn
50 55 60

Pro Arg Thr Gly Glu Gln Ile Asp Ile Pro Ala Ser Tyr Gly Val Arg
65 70 75 80

Ile Ser Ala Gly Ser Leu Leu Lys Lys Ala Val Thr Glu
85 90